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10/620,044

07/15/2003

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01/09/2008

EXAMINER

SINKANTARAKORN, PAWARIS

ART UNIT

PAPER NUMBER

2616

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DELIVERY MODE

01/09/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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|------------------------------|--------------------------------|---------------------------|--|
| Office Action Summary | Application No. 10/620,044 | Applicant(s) D. ET AL. | |
| | Examiner Pao Sinkantarakorn | Art Unit 2616 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see page 10 line 26 – page 12 line 4, filed 10/22/2007, with respect to the rejection(s) of claim(s) 1, 18, and 19 under 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn.

However, upon further consideration, a new ground(s) of rejection is made in view of newly found prior art rejection.

2. Claims 1-21 are pending. Claims 20 and 21 are newly added.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 20-21 are rejected under 35 U.S.C. 101 because it is directed to non-statutory subject matter.

Regarding claim 20 line 1-2, the recitation "a computer-readable medium encoded with one or more data structures" is non-statutory subject matter because it does not disclose "executable" computer instructions; therefore, it does not have a tangible result. The same is true for claim 21.

Note: To overcome this rejection, it is suggested to the applicant to amend the claims to be written in terms of "computer readable medium, encoded with computer executable instructions."

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-11 and 14-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Gerrevink (newly cited US 2003/0012141)

Regarding claims 1, 18, and 19, Erimli et al. disclose a method of generating data traffic in a traffic generator, the method comprising the steps of:

generating a plurality of traffic flows (see paragraphs 31 and 44); and

associating each of the traffic flows with at least one of a plurality of output interfaces of the traffic generator such that each of at least a subset of the plurality of output interfaces has two or more of the traffic flows associated therewith (see paragraphs 31, 52 and 77, a set of addresses is programmed to be routed to that output port, meaning that a plurality of traffic streams are associated with each output port);

the traffic flows comprising respective test traffic flows synthesized within the traffic generator (see paragraphs 31 and 35);

regarding claim 2, at least one of the traffic flows is generated based on user selection of at least one of a traffic model (see paragraph 36);

regarding claim 3, the output interfaces are associated with an output interface bus of the traffic generator (see paragraph 52));

regarding claim 4, the output interface bus is implemented as a software module representative of one or more physical connections (see paragraphs 39 and 76);

regarding claim 5, each of the plurality of traffic flows maps to one of the output interfaces of the traffic generator and to an input interface of the traffic generator (see paragraphs 31 and 52);

regarding claim 6, the traffic generator is operable in at least two phases, including a first phase in which a timestamp table is constructed based at least in part on user-selected configuration information (see paragraph 36), and a second phase in which packets are generated using the timestamp table constructed in the first phase (see paragraph 37);

regarding claim 7, the traffic generator comprises a pattern generator having a plurality of user-selectable pattern generation processes associated therewith, at least a given one of the processes generating a configuration list (see paragraph 36);

regarding claim 8, the traffic generator comprises a sequencer having a plurality of user-selectable sequencing processes associated therewith, a given one of the

sequencing processes specifying an order of selection of items from a configuration list
(see paragraph 36);

regarding claim 9, the plurality of sequencing processes comprises a group
sequencer which provides a correlative mapping between two or more configuration
lists and their associated parameters (see paragraphs 36 and 81);

regarding claim 10, information characterizing one or more of the traffic flows is
stored as a traffic file in a memory associated with the traffic generator (see paragraph
36);

regarding claim 11, the traffic file is represented as a string which includes a
global header followed by one or more frames each having an associated frame header
(see paragraph 36);

regarding claim 14, the traffic generator comprises a hardware traffic generator
(see paragraph 36);

regarding claim 15, the traffic generator comprises a software traffic generator
(see paragraphs 34, 36, 37, and 44);

regarding claim 16, the traffic generator comprises an element of a software-
based development tool for simulating the operation of an electronic system (see
paragraphs 34 and 36);

regarding claim 17, the traffic generator is implemented primarily in software and is configured to generate data traffic files that are utilizable in another traffic generator implemented primarily in hardware (see paragraphs 34 and 36).

Claim Rejections - 35 USC § 103

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 12 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gerrevink in view of Ryan (newly cited US 7,065,036).

Regarding claims 12 and 20, Gerrevink discloses the global header comprises a type field indicating a type of traffic description used (see paragraphs 56, 57, 77 and 79). Gerrevink does not disclose the global header comprises a clock speed field indicating a clock speed of the associated output interface. However, Ryan from the same or similar field of endeavors discloses a clock speed field indicating a clock speed of the associated output interface (see column 6 lines 63-65, a DATARATE parameter in the header, which describes the bit rate at which the packet is transmitted).

Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to implement a clock speed field indicating a clock speed of the associated output interface as taught by Ryan into the traffic generator of Gerrevink.

The motivation for implementing a clock speed field indicating a clock speed of the associated output interface is that it increases the reliability and efficiency of the traffic generator.

10. Claims 13 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Erimli et al. in view of Masucci et al. (newly cited US 6,498,667).

Regarding claims 13 and 21, Gerrevink discloses a method, wherein a given one of the frame headers comprises a flow identification field which identifies one or

more traffic flows associated with the corresponding frame (see paragraphs 77 and 79, a traffic stream can be defined by an associated traffic class, wherein the class is defined by the packet length) and a length field indicating the length of the corresponding frame (see paragraphs 77 and 79, a traffic stream can be defined by an associated traffic class, wherein the class is defined by the packet length). Gerrevink does not disclose a timing field indicating a time gap in clock cycles between the corresponding frame and a previous frame.

However, the invention of Masucci et al. from the same or similar fields of endeavor disclose a method, wherein header comprises a guard time field (see column 10 lines 30-34).

Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to implement a method, wherein header comprises a guard time field as taught by Masucci et al. into the traffic generator of Gerrevink.

The motivation for implementing a method, wherein header comprises a guard time field is that it allows the traffic generator to avoid overlapping between frames, which results in increased efficiency of the traffic generator.

Conclusion

11. Examiner's Note: Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as

well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pao Sinkantarakorn whose telephone number is 571-270-1424. The examiner can normally be reached on Monday-Thursday 9:00am-3:00pm EST.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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PS

A handwritten signature in black ink, appearing to be "Pan" followed by a stylized flourish.A handwritten signature in black ink, appearing to be "Ricky Q. Ngo".

RICKY Q. NGO
SUPERVISORY PATENT EXAMINER